

INSPECTION REPORT

Date of Inspection-19/11/2017

1.0 GENERAL

S. No.	Particulars	Details
1	Name of the Mine	Singsar Limestone Mine (having Various Survey Numbers)
2	Total Lease Area (Ha) with breakup of Non-forest and forest land	728.1156ha { Non-Forest: 704.4516ha (Agriculture Land), 16.0257ha (Gauchar Land) and 7.6383 (Waste Land)} Forest: Nil
3	Mine Code	38GUJ08351
4	IBM Registration Number under rule 45 of MCDR, 1988	IBM/447/2011
5	Name of the lessee, Address, phone, email and fax number	M/s Ambuja Cements Limited, At & PO: Ambujanagar, Taluka: Kodinar, District: Gir Somnath, State:Gujarat- 362 715 Tel. # : (02795) 221137, 237011 Fax # : 02795) 220328, 232032 e.mail id: md.office@ambujacement.com
6	Villages	Singsar, Barevla and Thordi
7	Taluka/Mandal	Sutrapada
8	District	Gir-Somnath
9	Pincode	362715
10	State	Gujarat
11	Post Office	Sutrapada
12	Nearest Police Station	Sutrapada
13	Nearest Railway Station	Veraval
14	Date of Grant of Mining Lease	18 th OCT'2011 (vide Order No. MCR-112000-644-CHH)
15	Date of Execution	08 th December'2011
16	Date of opening of Mine	15 th January'2012
17	Date of first Renewal, if applicable and its period & expiry	Not Applicable
18	Date of second Renewal, if applicable and its period & expiry	Not Applicable
19	Date of submission of renewal application if Mining Operations are continuing under deemed extension	Not Applicable
20	Name of the Nominated Owner with Address, phone, email, fax number and date of appointment	Shri Ajay Kapur, (Managing Director and CEO) M/s Ambuja Cements Ltd. Elegant Business Park, MIDC Cross Road 'B', Off Andheri-Kurla Road, Andheri (East), Mumbai-400 059. Tel. #: 022 4066700, Fax #: 022 30827790 e.mail id: md.office@ambujacement.com Date of appointment: 01/05/2013

21	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	<p>Shri S Ramarao</p> <p>M/s Ambuja Cements Limited, At & PO: Ambujanagar, Taluka: Kodinar, District: Gir Somnath, State: Gujarat- 362 715</p> <p>Tel. # : (02795) 221137, 232009 Fax # :02795) 220328, 232032</p> <p>e.mail id: ramarao.sukuru@ambujacement.com</p> <p>Date of appointment: 01/05/2013</p>
22	Name of the Mines Manager with Address, phone, email, fax number and date of appointment in mines	<p>Shri Kumar Rajan</p> <p>M/s Ambuja Cements Limited, At & PO: Ambujanagar, Taluka: Kodinar, District: Gir Somnath, State: Gujarat- 362 715</p> <p>Tel. #: (02795) 237210. e.mail id.: kumar.rajan@ambujacement.com</p> <p>Date of appointment:11.12.2011</p>
23	Name of the Mining Engineer, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine	<p>Shri Kumar Rajan</p> <p>Qualification – B.Tech. (Mining) Total experience -17 years</p> <p>M/s Ambuja Cements Limited, At & PO: Ambujanagar, Taluka: Kodinar, District: Gir Somnath, State: Gujarat- 362 715</p> <p>Tel. #: (02795) 237209. e.mail id.: kumar.rajan@ambujacement.com</p> <p>Date of appointment:11.112.2011</p>
24	Whether Geologist and Mining Engineer appointed in mines satisfy the rule 42 & carrying out their duties as per rule 43 & 44.	<p>Shri Shivamoorthy Swamy</p> <p>Qualification – Post Graduate (M.Sc. Applied Geology) Total experience -32 years</p> <p>M/s Ambuja Cements Limited, Address-At & PO: Ambujanagar, Taluka: Kodinar, District: Gir Somnath, State: Gujarat- 362 715</p> <p>Tel. # : (02795) 237200.</p> <p>e.mail id.: shiva.swamy@ambujacement.com</p> <p>Date of appointment in mines 21.09.2015</p>
25	Date of Approval of Mining Plan/Modified Mining Plan with five-year period and specific condition in approval letter, if any.	<p>The Mining Plan with Progressive Mine Closure Plan of Singsar Limestone Mine {(having Various Survey Nos.), Area: 728.1156 hectares} was approved by Controller of Mines (NZ), vides Letter No.682 (23) (514) /2007– Udp, dated 27th April, 2007 for the grant of Mining Lease & corrigendum issued vides Letter No.682 (23) (514) /2007– Udp, dated 05th May, 2010.</p>

		<p>The Modified Mining Plan with Progressive Mine Closure Plan of Singsar Limestone Mine {(having Various Survey Nos.), Area: 728.1156 hectares} was approved by Controller of Mines (NZ), vides Letter No.682 (23) (514) /2007–MCCM(N)Udp, dated 26th July, 2013.</p> <p>Mining Plan with Review of Modified Mining Plan under Rule 17 of MCR 2016 for five year implementation period (2016-17 to 2020-21) was approved by Dy. Controller of Mines, IBM, Udaipur, vides Letter No.682 (23) (514) /2007–MCCM (N)Udp, dated 25th NOV, 2016.</p>
26	Date of Approval of Scheme of Mining/Modified Scheme of Mining with five-year period and specific condition in approval letter, if any.	Instead of Scheme of Mining, Mining Plan with Review of Modified Mining Plan was submitted under Rule 17 of MCR 2016. Mining Plan under reference was approved for five year implementation period (2016-17 to 2020-21).
27	Mineral(s) granted in lease and proved for mining	Limestone is included in the Lease deed. Applicant intends to mine only Limestone.
28	Method of Mining(Open cast, Underground)	Open cast
29	Category (Fully Mechanised, Others or Manual)	'A' (Mechanized Open cast)
30	Captive/Non Captive	Captive

Scientific Mining: Compliance of proposals of approved mining plan/scheme of mining. –

Exploration

S. No.	Item	Proposals (2016-17)	Actual work	Remarks
1a	Backlog of previous year	The deposit has been adequately explored; therefore exploration was not carried out in the area.	The exploration carried out in the area encompasses topographic surveying, geological mapping, bore-hole drilling, surface sampling, well section observation and chemical analysis of samples.	
1b	Exploration over lease area for Geological axis 1 or 2.		<p>Before the grant of mining lease a total of 59 bore-holes in first stage were drilled with a cumulative meterage of 1703mtr. The maximum & minimum drilled depth is 30.00 mtrs & 18.50mtr, on an average the depth of the bore-hole is 28.80 mtrs.</p> <p>After the grant of Mining Lease a total of 121 bore-holes in second stage were drilled with accumulative meterage of 2688.40mtr. The maximum & minimum drilled depth is 30.00mtr & 15.00mtr, on an average the depth of bore-hole is 22.20mtr.</p>	Level of Exploration: G1- (Detailed Exploration)
1c	Exploration Agency & Expenditure in lakh Rupees during the year		<p>Shri U.D.G. Rao (1965-66), Waheed A A (1967-68), Goswamy R N (1970-71), Bhatt j V (1972-72), Trivedi A K (1979-81) and Rahalkar S v (1983-84) from the State Directorate of Geology and Mining investigated the area and had reported the occurrence of Milliolitic Limestone along the Coastal belt of Saurashtra region.</p> <p>Explorations already carried out by Mineral Resource department of M/s Ambuja Cements Limited,</p>	

			<p>Ambujanagar with help of following agencies.</p> <ul style="list-style-type: none"> • Shivraj Diamond Core Drilling, Saurashtra University Road, Opp. PanchhayatNagar, Archana Park, "Nijanand Sagar" Rajkot-360005, Rajkot-360005 (Gujarat). • Maruti Borewell, Diamond Core Drilling Contractor, At Vishal Hadmatiya, Taluka Besan, District junagadh (Gujarat). <p>e.mail ID: bhagirat.gb82@gmail.com</p> <p>Mobile No.: +919924495504, +919726900210 and +919426230390.</p> <p>Expenditure incurred in various prospecting operations is Rs.77,54,789.00/-</p>	
1d	Balance area to be explored to bring Geological axis in 1 or 2		Total area / deposit have been adequately explored.	
1e	Balance reserves as on 01.04.2017 (in million tonnes).	Reserves (111) of Limestone (as on 01/04/2016): 101.117 million tonnes.	Reserves (111) of Limestone (as on 01/04/2017): 98.853 million tonnes.	
1f	General remarks of inspecting officer on geology, exploration etc.			

2.0 Development

S. No.	Item	Proposals(2016-17)	Actual work	Remarks
2a	Location of development w.r.t. lease area	<p>During first year period (2016-17), total *28.2124 ha fresh area in Block Nos. (II, IV & VI) shall be opened-up for exploitation of Limestone.</p> <p>Block No.I: Total 9.9474ha surface area in Block No. I between grid lines {(2301685N to 2302060N) & (669815E to 670498E)} shall be opened-up all-around by formation of benches at 13.00 to 12.00mRL (for accretion of top soil) and 12.00 to 6.50mRL (for exploitation of Limestone) by leaving statutory boundary barrier zone from Lease Boundary and existing road. Dimension of working shall be around 316m x 315m x 6.50m (up to 6.50mRL).</p> <p>Block No.IV: Total 13.183ha surface area in Block No. IV between grid lines {(2300512N to 2300934N) & (669915E to 670230E)} shall be opened-up all-around by formation of benches at 10.00 to 9.00mRL (for accretion of top soil) and 9.00 to 6.00mRL (for exploitation of Limestone) by leaving statutory boundary barrier zone from Lease Boundary and existing road. Dimension of working shall be around 421m x 316m x 4.00m (up to 6.00mRL).</p> <p>Block No.V: Faces of old existing Pits (Nos. 17, 18, 19 & 25) shall be advanced in Northern, Eastern & western direction</p>	<p>During First year period (2016-17), area proposed in Block Nos.- I, IV & V are developed as per proposal.</p> <p>Part of the proposed area in proposed blocks could not be developed because NA permission & Surface right is pending.</p>	

		in Block No. V between grid lines {(2300566N to 2301147N) & (668308E to 668715E)} by formation of benches at 6.00 to 5.00mRL (for accretion of top soil) and 5.00 to -2.00 mRL (for exploitation Limestone) by leaving statutory boundary barrier zone from Lease Boundary and existing road. Dimension of working shall be around 319m x 284m x 8.00m (up to -2.00mRL) ultimately merge into Pit Nos. 17, 18, 19 & 25.		
2b	Separate benches in topsoil, overburden and mineral (Rule 15)	The top soil occurring within the proposed working area would be removed separately and concurrently used for Plantation/horticultural activities. Balance quantity of soil temporarily preserved on existing Soil stacks {near Grid Lines (2300701N & 667915E) and (2300650N & 668115E)} as marked on Surface Plan Plate No.3 & Environment Plan (Plate No.12) for future utilization.	The top soil occurring within the proposed working area is removed separately and concurrently used in plantation and development of Pasture/Agri-farm).	
2c	Stripping ratio or ore to OB ratio	Limestone deposit is simple and free from any overburden.	Stripping ratio or ore to OB ratio is nil.	
2d	Quantity of topsoil generation in m3	32328m ³	284495m ³	
2e	Quantity of overburden generation in m3	Area proposed for mining operation is free from hard-rock OB/waste.	Overburden generation is nil.	
2f	General remarks of inspecting officer on development of pit w.r.t. type of deposit etc.			

3.0 Exploitation

S.No.	Item	Proposals (2016-17)	Actual work	Remarks
3a	Number of pits proposed for production	Five pits was to be developed during 2016-17	Four pits along with existing pits are developed for exploitation of Limestone. Fifth Pits in the Part of the proposed area in proposed blocks could not	

			be developed because NA permission & Surface right is pending.	
3b	Quantity of ROM mineral production proposed	3000000 tonnes	2273222 tonnes (Production) & 2264182 tonnes (despatch)	
3c	Recovery of salable/usable mineral from ROM production	95% <i>[For net production {05% deviation is taken into account (Mining losses during operation, transportation & losses due to cavity /natural structure)}]</i> .	Recovery of saleable/usable mineral is 95%	
3d	Quantity of mineral reject generation	Quantity of mineral reject generation is nil	Quantity of mineral reject generation is nil	
3e	Grade of mineral reject generation and threshold value declared	Generation of Mineral reject is nil, therefore proposal was not required.	No action was taken.	
3f	Quantity of sub-grade mineral generation	Generation Sub-grade mineral is nil therefore proposal was not required.	No action was taken.	
3g	Grade of sub-grade mineral generation	Proposal was not required.	No action was taken.	
3h	Manual / Mechanised method adopted for segregating from ROM	Proposal was not required	No action was taken.	
3i	Any analysis or beneficiation study proposed & carried out for sub-grade mineral and reject.	Proposal was not required.	No action was taken.	
3j	Provision of drilling & blasting in mineral benches	Mining operation is carried out without adoption of drilling & blasting therefore proposal was not required.	No action was required.	
3k	Provision of mining machineries in mineral benches	The excavation, loading and transport shall be carried out by Surface Miner (200 & 400 TPH), Hydraulic Excavator (0.96 m ³ bucket), Front End Loader (3.5 to 5.0 m ³) and MAN Tip-tailors & AMW (30 tonnes) respectively.	Mining operation is carried out by deployment of proposed mining machineries.	
3l	Whether height of benches in	Not required	No action was required.	

	overburden and mineral suitable for method of mining proposed in MP/SOM	(Area proposed for mining operation is free from top-soil, hard-rock OB/waste).		
3m	Total area covered under excavation/pits	Total 28.2124ha (fresh area) along with existing Pits was proposed for 2016-17.	Out of 84.9431ha (Cumulative), 15.4449 ha area is utilized during 2016-17.	
3n	Ore to OB ratio for the pit/mine during the year	Area proposed for mining operation is free from hard-rock OB/waste).	No action was required.	
3o	Total area put in use under different heads at the end of year	Pit- 28.2124ha along with existing Pits (O/c) Waste/reject:0.000ha Others:3.5101ha (Top-Soil) 1.0283ha (mineral storage), 4.4956ha (mine road)	Pit-15.4449ha along with existing Pits (O/c) Waste/reject:0.000ha Others:3.5101ha (Top-Soil) 1.0283ha (mineral storage), 4.4956ha (mine road)	
3p	Production of ROM mineral during last five-year period, as applicable (In tonne)	Proposal Yr-(2011-12) =1000000 Yr-(2012-13) =3000000 Yr-(2013-14) =3000000 Yr-(2014-15) =3000000 Yr-(2015-16) =3000000	Compliance Position Yr-(2011-12) =25528(Production) =25528(Despatch) Yr-(2012-13) =1444544(Production) =1444544(Despatch) Yr-(2013-14) =1162361(Production) =1148851(Despatch) Yr-(2014-15) =951880(Production) =920815(Despatch) Yr-(2015-16) =1628345(Production) =1672920(Despatch)	
3q	General remarks of inspecting officer on method of mining etc.			

4.0 Solid Waste Management-Dumping

S.No	Item	Proposals (2016-17)	Actual work	Remarks
4a	Separate dumping of topsoil, OB & mineral reject (Rule 32, 33)	Area proposed for mining operation is free from hard-rock OB/waste). Total 323286m ³ top soil would be removed separately and concurrently utilizes for	284495 m ³ top soil is utilized for development of 3.2148ha pasture land.	

		development of Pasture Land/Agri-farming		
4b	Location of topsoil, OB & mineral reject dumps	Proposal was not required.	No action was taken.	
4c	Number of dumps within lease area and outside lease area	Proposal was not required.	No action was required.	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Proposal was not required.	No action was required.	
4e	Number of active & alive dumps	Proposal was not required.	No action was required.	
4f	Number of dead dumps	Proposal was not required.	No action was required.	
4g	Number of dumps stabilized	Proposal was not required.	No action was required.	
4h	Whether Retaining wall or garland drain all along dumps are there	Proposal was not required.	No action was required.	
4i	Length of Retaining wall or garland drain all along dump	Proposal was not required.	No action was required.	
4j	Number of settling ponds	Proposal was not required.	No action was required.	
4k	Specific comments of inspecting officer			

5.0 Solid Waste Management-Backfilling

S.No.	Item	Proposals (2016-17)	Actual work	Remarks
5a	Status on part or full extraction of mineral from mined out area before starting backfilling	As per proposal, total 28.2124 ha area shall be fully extracted during (2016-17), no proposal has been mined for reclamation & restoration of mined out area.	At the end 2016-17, total 15.4449ha area is opened-up for mineral (Limestone) exploitation.	
5b	Area under backfilling of mined out area	Area devoid of OB/waste, therefore restoration & reclamation of mined out area by means of backfilling is not possible.	No action was required.	
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 32)	Total 323286m ³ top soil would be removed separately and concurrently utilizes for development of Pasture Land/Agri-farming	284495 m ³ top soil is utilized for development of 3.2148ha pasture land.	
5d	Total area fully reclaimed & rehabilitated	No proposal has been mined for reclamation & restoration of mined out area.	No action was required.	
5e	General remarks of inspecting officer on backfilling, reclamation etc			

6.0 Progressive Mine Closure Plan

S.No.	Item	Proposals (2016-17)	Actual work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly - Rule 23E(2). Details should be given in the format as given in Annexure-20 .	Fifth year (2016-17) proposal for implementing the protective and rehabilitation measures / proposals given in the Progressive Mine Closure Plan is furnished in tabular form under Annexure-3F of approved Scheme of Mining.	As per rule 26(2) of MCDR, 2017 annual report on PMCP (protective & rehabilitative work carried out as envisaged in the approved Mine Closure Plan) is submitted in stipulated time bound manner.	
6b	Management of worked/mined out benches i) Area available for rehabilitation (ha) ii) Afforestation done (ha) iii) No. of saplings planted during the year iv) Cumulative no. of plants v) Any other specific method of rehabilitation vi) Cost incurred on watch & care during the year	Proposal: (i) 0.0000ha Not proposed. (ii) 2.0000 ha (iii) 30000 (iv) 4234 (v) Nil (vi) Rs.300,000/-	Actual: (i) 0.0000ha Not required (ii) Re-planted in existing Planted area (iii) 405 (iv) 29953 (v) Nil (vi)Rs.1251770/- (including site restoration)	
6c	Compliance on reclamation and rehabilitation by backfilling i) Voids available for backfilling (L X B X D) ii) Void filled by waste/tailings iii) Afforestation on the backfilled area iv) Rehabilitation by making water reservoir v) Any other specific means	Proposal was not required.	No action was required.	
6d	Compliance of Rehabilitation of waste land within lease i) Afforestation ii) Area rehabilitated (ha) iii) Method of rehabilitation	Proposal was not required.	No action was required.	
6e	Compliance of Environmental monitoring (core zone & buffer zone)	Environment monitoring (air quality, water quality and noise level) in core zone & buffer	Monitoring of Air & Noise level is being done regularly in core zone & buffer zone (pl. refers	

		zone shall be done by Environment Department of M/s Ambuja Cements Limited, Ambujanagar regularly every year.	Annexure-20 & 21 of approved Mining Plan). Air quality & noise level are well within the limits specified by the Central Pollution Control Board. Recurring Expenditure is Rs. 10.77 Lakh (Environment Protection & Environment Monitoring)	
6f	General remarks of inspecting officer on PMCP compliance & progressive			

7.0 Mineral Conservation

S.No.	Item	Proposals (2016-17)	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Limestone: 3000000tonnes	Limestone: (Production) 2273222tonnes (Despatch) 2264182tonnes	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Proposal was not required.	No action was required.	
7c	Different grade of mineral sorted out at mines	Proposal was not required.	No action was required.	
7d	Any beneficiation process at mines	Proposal was not required.	No action was required.	
7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues			

8.0 Environment

S.No.	Item	Proposals (2016-17)	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Total 323286m ³ top soil would be removed separately.	284495 m ³ top soil is removed and utilized in development of 3.2148ha pasture land & Plantation work.	
8b	Concurrent use or storage of topsoil	Top Soil shall be concurrently utilizes for development of Pasture Land/Agri-farming.	Top Soil is concurrently utilized for development of Pasture Land/Agri-farming.	

8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Proposal was not required.	No action was required.	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Proposal was not required.	No action was required.	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Proposal was not required.	No action was required.	
8f	Baseline information on existence of plantation & additional plantation done (Rule 41)	It is proposed to undertake plantation of 30000 numbers of saplings over an area of 2.0000 hectares. Location: 7.5 mtr wide statutory barrier, the periphery of the working area, around the mining office and along adjacent nallah.	During the fifth year period (2016-17), total 405 numbers of samplings is re-planted within the existing planted area. (Survival Rate: 70%). Cumulative: No. of sapling Planted: 1639 Total Restored area: 1.1213ha.	
8g	Survival rate	Survival Rate: 70%	No. of saplings survived: 284 (@ 70%),	
8h	Water sprinkling on roads to control airborne dust	Proposals have been made for water sprinkling on haul road.	Water sprinkling on haul road is regularly carried out.	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines are			

9.0 Compliance of Rule 45

S.No.	Item	COMMENTS	Remarks
	Status of submission of Online Monthly and Annual returns	M.R. Submitted up to till date- A.R. submitted up to till date-	As per Rule 45(5) (b) (i) of MCDR, 2017 Monthly Return is submitted before the 10 th day of every month in respect of the preceding month. As per Rule 45(5) (c) (i) of MCDR, 2017 Yearly Return is submitted before the 1 st July of

			each year for the preceding month.
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S.No.	Item	Details GIVEN in A.R.(2015-16 &2016-17)	Observation of I/Officer /Actual reported in Returns	Remarks
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager			Scrutiny comments are not issued in this regards.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.			Scrutiny comments are not issued in this regards.
9d	Scrutiny of Annual return on afforestation			Scrutiny comments are not issued in this regards.
9e	Scrutiny of Annual return on mineral reject generation (Grade & quantity)			Scrutiny comments are not issued in this regards.
9f	Scrutiny of Annual return on ROM stock and/or graded ore			Scrutiny comments are not issued in this regards.
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production cost			Scrutiny comments are not issued in this regards.
9i	Scrutiny of Annual return on fixed assets			Scrutiny comments are not issued in this regards.
9k	Scrutiny of Annual return on mining machineries			Scrutiny comments are not issued in this regards.

10- Details of violations observed during current inspection and compliance position of earlier violation pointed out:-

Violations were not pointed out during current inspection.

Mine was inspected under Star Rating validation. It is FIVE STAR RATED MINE

K.S.YADAV
Regional Controller of Mines
Indaian Bureau of Mines
Gandhinagar